At KS4 students are given the option to choose GCSE Computing if they wish to continue their studies in this subject.

In GCSE Computing the following topics are undertaken

*1.1 Systems architecture*

*1.2 Memory and storage*

*1.3 Computer networks, connections and protocols*

*1.4 Network security*

*1.5 Systems software*

*1.6 Ethical, legal, cultural and environmental impacts of digital technology*

*2.1 Algorithms*

*2.2 Programming fundamentals*

*2.3 Producing robust programs*

*2.4 Boolean logic*

*2.5 Programming languages and IDE*

*Programming projects*

*Paper two Mock exam*

BTEC Digital media production consists of three components.

1. Exploring media products – *internally assessed assignment*
2. Developing Digital media production skills – *internally assessed assignment*
3. Create a media product in response to brief – *external Synoptic 9 hour assessment*

**KNOWLEDGE RETENTION**

Used effectively multiple-choice quizzes help students recall retained information from previous learning episodes. They can allow the teacher to identify gaps in students learning which will also aid with planning. They can also be used a comparable form of assessment across classes. Examples are the KS3 Quick Quizzes; KS3 end of topic tests; KS4 Kahoot Quizzes for GCSE; KS4 MCQ. Starter Memory re-call quick quizzing is used most lessons to support recall of key terms and processes.

**KNOWLEDGE ACCESS**

**Vocabulary Exposition**

In computing many tier 3 words have clear and obvious etymological links e.g. Binary. We strive to teach the etymology of words in lessons to enable students to not only remember the keywords but apply them in the correct context especially with word families from the same root word. The Knowledge Organisers for Computing outline the key tier 3 vocabulary and there are regular opportunities to refer to these resources including quizzing, already mentioned. Tier 2 words are broached as they arise and the teacher notices students having difficulty in understanding the texts being read.

**Reading Instruction**

Texts in Computing can be technically diverse and challenging. Most activities are supported with texts appropriate to them but help is often need to decode and understand the more challenging terms. The KOs support this along with teachers reading out loud and leading reading episodes in class.

**Writing Instruction**

Online assignments allow students to practice and improve their subject specific writing and use of key knowledge. These assignments have scaffolding so that all can achieve their potential. Written work comes in the form of practice questions, extended writing via research and digital product design as we feel it is important for students to understand how the written word should be presented when dealing with digital mediums.

**STUDENT FOCUS**

Allowing students to work together constructively to solve problems in the KS4 Pair Programming and Kodu Test and Play components of the curriculum, for example, supports and extends learning.

Students are given dedicated improvement time to act and reply to feedback to improve their work and understanding.

For parts of the curriculum in Computing an enquiry-based approach is adopted through a flipped classroom when appropriate. We encourage students to solve their own problems by trial and error to enable them to become more resilient when it comes to technology. This is seen in “Exploration time – what does this do” and “Choose your own software.”